Case Report: Godoy & Godoy method of cervical lymphatic therapy – indirect evaluation of the effect of the duration of stimulation on ocular edema [version 1; peer review: 1 approved]

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Abstract

The aim of the present <u>case-report study</u> is to <u>describe report</u> the indirect <u>assessment</u> evaluation of

cervical stimulation <u>on considering the effect of the duration of the</u> <u>stimulus on</u> the control of intraocular pressure in a patient with bilateral glaucoma with <u>relevantimportant</u> ocular edema. <u>Furthermore, we examined the variability of the outcomes with regards to the duration of the manual therapy.</u> A 47-year-old

woman reported the onset of pain and bilateral tearing in the eyes at 35 years of age and was diagnosed with glaucoma. The patient began clinical conventional treatment, but intraocular pressure remained 35 to 40 mmHg even with the use of four eye medications in the form of eyedrops and. The patient reported that her vision remained was always blurred, despite the use of the eyedrops. The patient was subsequently submitted to the Godoy & Godoy method of cervical lymphatic manual therapy to reduce the facial edema. The ophthalmologist measured Hher intraocular pressure was measured every two orand three days. It was found We found that the pressure was maintained below 20 mmHg when lymphatic therapy was performed every two days, but intraocular pressure increased and the vision became blurred again when therapy was performed every three days. In conclusion through tThe Godoy & Godoy method of cervical lymphatic therapy it was possible to constitutes a novel lymphatic system stimulation strategy that maintains lower intraocular pressure in a glaucoma patient; this effect lasted its effect on intraocular pressure

for approximately 48 hours, as demonstrated through an indirect evaluation.

Keywords

Ophthalmology, Godoy & Godoy method, lymphatic therapy, glaucoma

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Introduction

The Godoy & Godoy method of cervical <u>manual</u> lymphatic therapy is a novel lymphatic stimulation concept developed in recent

years based on the adaptation of the manual lymphatic drainage technique using linear movements for the treatment of

facial lymphedema. 1–3 The method emerged from the development of a novel therapeutic option that did not involve

manual drainage in the region of the carotid body to avoid the complications of its stimulation. The strategy was to drain

only below the midline of the neck. However, during the treatment of a patient with cervical clearance and an ulcerated

lesion below the midline with intense fibrosis, the option was to perform by means of small sliding movements in this region and . This was

initially an attempt to perform linear drainage with short elongation of the skin. The following day, the patient reported

improvements in both pain and neck mobility and had slept better. This information led to the decision to perform the

technique 15 to 20 minutes per day. The improvement was continuous over the subsequent days, with the clinical reversal

of the fibrosis, which led to an improvement in the quality of life of this patient.2

A few specific cases of facial, mouth and eye edema were previously treated with this method, achieving positive outcomes. nother patient with cervical clearance who was unable to close their mouth and required the use of a nasogastric

tube was treated daily. After three months, the child began to eat and a dental prosthesis was adapted, leading to an

improvement in quality of life. Another patient with facial edema who was unable to open the eyes and the tongue did not

fit in the mouth was submitted to three days of treatment; the child was evaluated on the fifth day, at which time the patient

was able to open and close the eyes and the tongue had reduced in size.3

<u>Furthermore, b</u>Based on these observations, the results of this method as monotherapy for upper and lower limb lymphedema wasere successfully appliedevaluated as well. A two-year evaluation of this cervical method as monotherapy revealed improvement in all patients. 4 The assessment of this

method as monotherapy for upper limb lymphedema was then performed 5 Interestingly, and a report of long term (10 years) the results of this protocol in congenital lymphedema after ten years of

follow-up was recently published.6 Several studies combining this method with other forms of treatment for lymphedema have

been conducted over the years. 7 The aim of the present study is to report the indirect evaluation of cervical stimulation

considering the effect of the duration of the stimulus on the control of intraocular pressure in a patient with bilateral

glaucoma with concomitant relevant important ocular edema.

Case report

A <u>35</u>47-_year<u>s</u>-old woman (white, photographer) reported in January 2009, the onset of pain and bilateral tearing in the eyes at

35 years of age and she was diagnosed with glaucoma. The patient began conventional clinical treatment, with little benefit and but intraocular pressure remained in the level of 35 to 40 mmHg, even with the use of four eye medications in the form of drops. She also consulted sought 13 ophthalmologists to assess the possibility to undergo surgery for her glaucoma, but the excessive edema was considered a contraindication none was willing to perform surgery due to the excessive edema. When she was 36 At 36 years of age, the patient presented to our clinic with

the patient sought a clinic for the treatment of lower limb varicose veins. CEAP C2 and EYE hyperemia and with periorbital edema.

were findings that drew the attention of the health team. The patient reported <u>a that her</u> blurred vision <u>vision was always blurred</u> despite the

use of the eye drops (Figure 1). <u>Hence, t</u>The patient was submitted to the Godoy & Godoy method of cervical <u>manual</u> lymphatic therapy to

reduce the edema (Figure 2), which resulted in an improvement <u>sincein</u> the first session. The <u>his</u> therapy consisteds of gentle

Figure 1. Hyperemia with periorbital edema.

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stretching elongating movements of approximately 0.5 cm on the skin surface, supraclavicular neck, at a rate of 30 movements per

minute, for 20 minutes per day (Figure 3).

The patient <u>improved her sight</u> began to see better and <u>she referred no more a no longer had</u> blurred vision. <u>beginning with the first session</u>. In an initial phase,

cervical lymphatic therapy was performed daily and subsequently every other day. Together with the clinical improvement, the ophthalmologist recorded a decrease of he patient's vision was no longer

blurred. <u>i</u>Intraocular pressure <u>to the value of was reduced to</u> less than 20 mmHg and the <u>pharmacological treatment was reduced to</u> ophthalmologist reduced the prescription to two medications. Periorbital edema and hyperemia were normalized.

When interrupting the treatment During one weekend, the patient experienced a clinical worsening again. Once re-started the treatment protocol the 's vision became blurred again. The patient had spent three days without undergoing therapy. We asked the ophthalmologist was asked to to-measure her

intraocular pressure, <u>after each treatment</u>. <u>every two and three days</u>. <u>It was found that We found that</u> the pressure was maintained below 20 mmHg when

the lymphatic therapy was performed every two days, but intraocular pressure increased and the vision became blurred when

therapy was performed every three days.

The patient was followed up at the clinic for two years, <u>until when</u> she was <u>submitted able</u> to <u>surgery for her glaucoma</u>. find an ophthalmologist to perform glaucoma

surgery. Ocular pressure consequently reduced to 7 to 8 mmHg in both eyes and remaineds at this level. However, even after surgery, the

vision <u>deteriorated</u> <u>became blurred</u> again <u>afterwards</u>, which <u>led us to reiterate</u> <u>was improved</u> <u>with</u> cervical lymphatic therapy <u>achieving a clinical improvement</u>.

Figure 2. After cervical lymphatic therapy.

Figure 3. Cervical lymphatic therapy technique.

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It has been nine years since the patient was submitted to surgery. She initially needed to perform cervical lymphatic

therapy more often, but currently she undergoes this therapy less frequently sporadically.

<u>In conclusion the application of c</u>Gervical lymphatic <u>manual</u> therapy <u>in a glaucoma patient</u> <u>proved effective to maintained intraocular</u>

pressure <u>under control controlled</u> for 48 hours; <u>similarly</u>, <u>but</u> surgery <u>resulted in brought</u> a <u>longermore</u> lasting benefit, <u>though complementary manual therapy can be equally indicated</u>

to improve the surgical outcomes furthermore.-

This study received approval from the institutional review board of the São Jose do Rio Preto School of Medicine

(reference number 4.962.509), and the patient signed a consent form.

Discussion

The present study is an indirect way of evaluating the Godoy & Godoy method of <u>manual</u> cervical stimulation, which is currently

denominated the Godoy & Godoy method of cervical lymphatic therapy. Th<u>is specific</u>
<u>treatment proved effective to improve eye vision in our glaucoma patient e improvement in vision with the first session</u>

drew the attention of the researchers, who then performed therapy on the patient 15 to 20 minutes per day, leading to the

disappearance of the blurred vision. In order to quantify also the possible results of this method on the intraocular pressure, specific measurements were performed and showed a decrease The initial question was how to quantify these results. However, the ophthalmologist noted an improvement in intraocular pressure from approximately 40 mmHg to less than 20 mmHg. The patient could also discontinue two of her medications and , with the reduction from four eye medications to two.

<u>Dd</u>aily therapy led to the maintenance of non-blurred vision, <u>except when but the vision</u> <u>blurred when</u> the patient performed physical

effort, which led to an increase in intraocular pressure. <u>It was also noted that Another important observation was the fact that</u> the patient's vision

typically deteriorated became blurred when she spent three days without cervical lymphatic therapy and improved again when receiving the therapy again. Hence turning to therapy. Thus, the decision was made to standardize the ocular evaluation every two and three days. The ophtalmologist's examinations revealed that, which revealed that the vision and intraocular pressure variations depended on the frequency with which the lymphatic therapy was performed; overall this suggests normal vision was maintained for two days and became blurred on the third day due to the increase in intraocular pressure, suggesting that cervical lymphatic therapy maintains the results for approximately 48 hours. Therefore, this is a novel

form of stimulating the lymphatic system <u>may maintain</u> that maintains its effects for 48 hours <u>and one</u>. One of the hypotheses is <u>that the induced longer-lasting</u> neurological stimulus <u>may contribute</u> to this effect.

, which remains activated for various hours.

This experiment was conducted several times over a two-year period until the patient was able to undergo glaucoma

surgery. However, her vision frequently becomes blurred and improves with cervical lymphatic therapy, which was

initially required more often and is currently only needed sporadically. Overall, tThe Godoy & Godoy method of cervical

<u>manual</u> lymphatic therapy constitutes a novel <u>strategy to induce</u> lymphatic <u>syssys</u>tem stimulation <u>which strategy that</u> maintains its effect on intraocular pressure for approximately 48 hours, as demonstrated through an indirect evaluation. <u>F</u>, but further studies are needed to

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confirm more lasting benefit <u>in and for</u> similar cases.

Data availability

All data underlying the results are available as part of the article and no additional source data are required.

Consent

Written informed consent for publication of their clinical details and clinical images was obtained from the patient.

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